Installation Guide

MXT-2000XL-PAN 20.3" Modero X Series® Panoramic Tabletop Touch Panel

Overview

The MXT-2000XL-PAN 20.3" Modero X Series Panoramic Tabletop Touch Panel (**FG5968-01**) provides several industry firsts, including a beautiful, panoramic capacitive multi-touch screen that provides users access to multiple applications with minimal navigation. It is hardware-ready for support of Near Field Communications™ (NFC) Technology, to allow personalization of the user experience and productivity enhancing capabilities through integration with NFC-capable personal devices. The distinctive, low-profile design is engineered to sit perfectly on a table without obstructing views. Modero X Series is the control surface that simply delivers more.

For more information on installation and configuration, please refer to the *MXT/MXD-2000XL-PAN Operation Reference Guide*, available at **www.amx.com**.

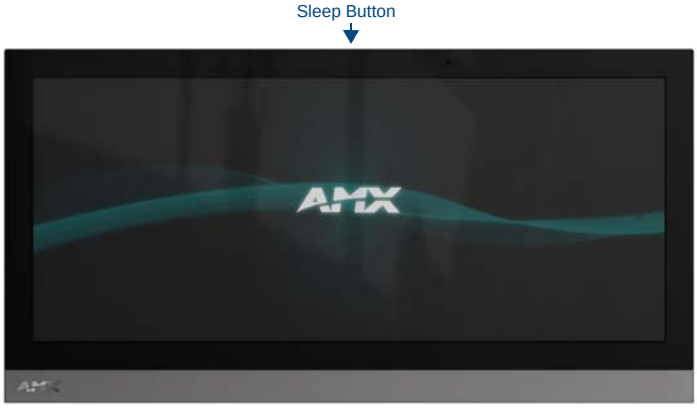

FIG. 1 MXT-2000XL-PAN - Front View

Common Application

The MXT-2000XL-PAN is intended for boardrooms, conference rooms, or auditoriums where a panoramic control surface is needed to provide access to multiple functions simultaneously while remaining elegantly unobtrusive. In residences, it is perfect for kitchens, home theaters, or home offices where the panoramic control surface can be used to manage systems throughout the house.

Features

- **Panoramic Control Surface** – Combined with the new PanTastic UI, the panoramic touch panels take the user experience to a whole new level with an impressive control surface to perform activities much in the same way you use a computer – multi-tasking with dedicated spaces.
- **Future Technology Visions** – HD video chat and conferencing using integrated camera and hardware - ready to support Near Field Communication (NFC) Technology, which promises short-range wireless technologies that deliver peer-to-peer communication by 'sharing, pairing and transaction' between RF devices like exchanging data/identities.
- **Enhanced Usability** – External phone connections via Bluetooth or USB and HD video streaming.
- **Graphic Leaps & Bounds** – The Modero X Series includes some striking new intuitive UI functionality including: gesturing, swiping, dynamic reordering, and enhanced animation capabilities.
- **Perfect From Any Angle** – Includes In-Plane Switching (IPS), the latest technology in popular tablet/mobile devices that delivers the widest viewing angles and the most accurate color reproduction on the market.

Product Specifications

MXT-2000XL-PAN Specifications	
Power Requirements:	12VDC, 4.4A LPS: 2-pin, locking 3.5mm captive wire connector.
Front Panel Components:	
Light Sensor:	Photosensitive light detector for automatic adjustment of the panel brightness.
Motion Sensor:	Proximity detector to wake the panel when it is approached. • *Typical Range:* 1 foot (30.48 cm) • *Maximum Range:* 3 feet (91.44 cm) • *Range width:* 10 degrees
LED Indicator:	Camera with active indicator
Sleep Button:	Single button on top of panel for placing panel in sleep mode, for powering off the panel, and for accessing the Settings Pages.
Microphone:	-42dB ± 3dB sensitivity FET microphone
Speakers:	4 ohm, 2 Watt, 300Hz cutoff frequency
Camera:	HD 720P camera for video conferencing/video chat support.

MXT-2000XL-PAN Specifications (Cont.)	
Rear Panel Components (Cont.):	
USB connections:	2 easily accessible USB ports on rear of base, used for connection to keyboard, mouse, or other peripherals.
Underside Panel Components:	
Ethernet 10/100 Port:	10/100 Base-T RJ-45 connector for Ethernet connectivity.
Power Port:	Locking 2-Pin, 3.5mm captive wire connector.
Micro-USB Port:	5-pin Micro-USB connector used for camera video and microphone output only.
USB Port:	1 USB port, used for connection to keyboard, mouse, or other peripherals.
Touch Panel Display:	
Display Type:	TFT Active Matrix Color LCD with In-Plane Switching (IPS) technology.
Display Size:	20.4" x 9.5" (519 mm x 242 mm), 21.3" (541 mm) diagonal
Viewable Area:	18.7" x 7.8" (475 mm x 198 mm), 20.3" (514 mm) diagonal
Viewing Angle:	• Vertical: ± 89° • Horizontal: ± 89°
Screen Resolution (W x H):	1920x800
Aspect Ratio (W x H):	12x5
Brightness:	250 cd/m2
Contrast Ratio:	1000:1
Color Depth:	16,7M colors
Backlight Type:	LED
Touch Overlay:	Projected Capacitive; Multi-touch support, 3 simultaneous max.
Communications:	
Ethernet:	10/100 port, RJ-45 connector
USB:	3 - USB host 2.0, Type A ports
Near Field Communications (NFC):	Supports standards ISO/IEC 15693, ISO/IEC 14443A, ISO/IEC 14443B; Unique Identifier (UID), Typ Range=.25", Max = .5"
Bluetooth:	HID Profile v1.1, Keyboard/Mouse Support, requires MXA-BT Bluetooth Adaptor.
Video:	
Streaming/File Formats:	MPEG-TS for MPEG2; HTTP for MJPEG
Video Conferencing:	External application using on-board camera and microphone through Micro-USB connection.
Audio:	
Streaming/File Formats:	WAV, MP3
Intercom:	Full Duplex VoIP, SIP v2.0 (supported with AMX-CSG)
Operating Environment:	• Operating Temperature: 32° F to 104° F (0° C to 40° C) • Storage Temperature: 4° F to 140° F (-20° C to 60° C) • Humidity Operating: 20% to 85% RH • Humidity Storage: 5% to 85% RH
Dimensions (HWD):	9 1/4" x 20 7/16" x 5 7/8" (234 mm x 519 mm x 149.6 mm)
Weight:	12.2 lbs (5.53 Kg)
Certifications:	• UL • FCC Part 15 Class B • C-Tick CISPR 22 Class B • CE EN 55022 Class B and EN 55024 • CB Scheme IEC 60950-1
Included Accessories:	• MXT-2000XL-PAN Installation Guide (**93-5968-01**) • MXA-CLK Modero X Series Cleaning Kit (**FG5968-16**) • 3.5mm Locking Captive Wire Connector (**41-0002-SA**) • HPG-10 .75-inch HydraPort .75-IN. Grommet (**FG570-01**) • Type A USB Covers (2) • Tie Wrap for Power Source Ferrite
Other AMX Equipment:	• PSN4.4 4.4AMP, 13.5VDCA5 Power Supply (**FG423-45**) • MXA-BT Bluetooth USB Adaptor (**FG5968-19**) • MXA-USB-C USB Cover Kit (**FG5968-18**)

NOTE: *The MXT-2000XL-PAN-NC (**FG5968-32**) No Comm touch panel does not have camera, microphone, or NFC capability. It otherwise has all of the functionality of the MXT-2000XL-PAN panel.*

Panel Connectors and Wiring

FIG. 2 shows the connectors located on the underside of the MXT-2000XL-PAN. The Micro-USB port is used for camera video output. The underside USB port, as well as the two rear USB ports, may be used with a flash drive for page transfers, firmware upgrades, or Picture View. Any USB peripherals (mouse, keyboard, etc.) may be connected to one of the two USB ports on the rear of the device.

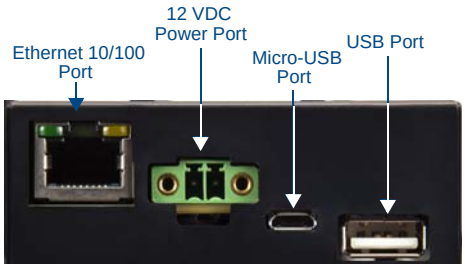

FIG. 2 Rear connectors

The MXT-2000XL-PAN does not have individual channels on the base of the device to allow passage of cables from underneath the base. Instead, it has one slot at the base to allow options on cable configuration, with channels for securing power, Ethernet, and Micro-USB cables (FIG. 3).

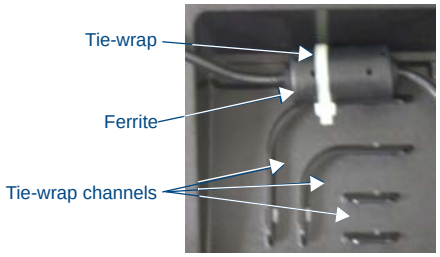

FIG. 3 Tie-wrap for power connector ferrite

Each channel side has slots for attaching tie-wraps to secure each cable. The ferrite on the power cable must be secured with the included tie-wrap during installation to prevent the possibility of the panel not sitting flush on the table.

Wiring Guidelines

The MXT-2000XL-PAN uses a 12 VDC-compliant power supply to provide power to the panel via the 2-pin 3.5 mm captive wire PWR connector. Use the previously provided power requirement information to determine the power draw. The incoming PWR and GND wires from the power supply must be connected to the corresponding locations within the PWR connector.

NOTE*: Apply power to the panel only after installation is complete.*

NOTE*: Connecting power to the MXT-2000XL-PAN should be done using the included 2-pin 3.5mm captive wire connector included with the device. This connector is retained within its port with locking screws instead of the pins on each side of standard captive wire connectors, and using force to insert a standard captive wire connector may damage the device.*

Wiring a Power Connection

To use the 2-pin 3.5 mm captive wire connector with a 12 VDC-compliant power supply, the incoming PWR and GND wires from the external source must be connected to their corresponding locations on the connector (FIG. 4). The connector uses locking screws to insure a connection to the device, so make sure to insert and tighten the screws before applying power.

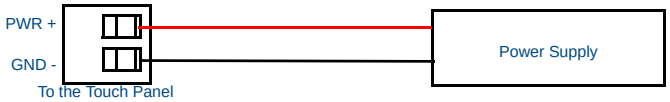

FIG. 4 NetLinx power connector wiring diagram

1. Insert the PWR and GND wires on the terminal end of the 2-pin 3.5mm captive wire connector cable. *Match the wiring locations of the +/- on both the power supply and the terminal connector.*
2. Tighten the clamp to secure the two wires. *Do not tighten the screws excessively; doing so may strip the threads and damage the connector.*
3. Verify the connection of the 2-pin 3.5 mm captive wire connector cable to the external 12 VDC-compliant power supply and apply power.

Configuring the MXT-2000XL-PAN

The MXT-2000XL-PAN is equipped with Settings Pages that allow you to set and configure various features on the panel. For more information on connecting and configuring the MXT-2000XL-PAN to a network, please refer to the *Modero X Series Programming Guide*, available at **www.amx.com**.

Accessing the Settings Pages

To access the Settings Pages on the MXT-2000XL-PAN, press and hold the **Sleep** Button (FIG. 1) on the top of the panel for 3 seconds. The user will be prompted to release the button to enter the *Settings* page.

Accessing The Configuration Page

1. From the *Settings* Page, select *Configuration*. If the *Configuration* page is password protected, this opens a password keypad.
2. Enter the panel password into the keypad (the default is ***1988)*** and select **Ok** to access the page.

Setting the Panel's Device Number and Device Name

In the *Configuration* page:

1. Press *Panel* to open the *Panel Configuration* page.
2. Ensure that the *Synchronize Device Names* button is not selected, and click it to deselect it if it is.
3. Press *Device Number* to open the Device Number keypad.
4. Enter a unique Device Number assignment for the panel and press **OK.**
5. Press the *Device Name* field to open the Device Name keypad.
6. Enter a unique Device Name assignment for the panel and press **OK**.
7. Click the arrow on the top left of the page once to return to the *Configuration* page and twice to return to the *Settings* page.

Accessing The Connection & Networks Page

1. From the Settings Page, select *Connection & Networks*. If the page is password protected, this opens a password keypad.
2. Enter the panel password into the keypad (the default is ***1988)*** and select **Ok** to access the page.

Connecting To a Master

The panel requires that you establish the type of connection you want to make between it and your master.

In the *Connection & Networks* page:

1. Select **Master Connection** to open the *Master Connection* page
2. Press *Mode* to toggle through the available connection modes:

Connection Modes

Mode	Description	Procedures
Auto	The device connects to the first master that responds. This setting requires that you set the System Number.	Setting the System Number: 1. Select Master System Number to open the keypad. 2. Set your Master System Number and select **Ok**.
URL	The device connects to the specific IP of a master via a TCP connection. This setting requires that you set the Master's IP.	Setting the Master IP: 1. Select the Master IP number to the keyboard. 2. Set your Master IP and select **Ok**.
Listen	The device "listens" for the master to initiate contact. This setting requires you provide the master with the device's IP.	Confirm device IP is on the Master URL list. You can set the Host Name on the device and use it to locate the device on the master. Host Name is particularly useful in the DHCP scenario where the IP address can change.

3. If you have enabled password security on your master, you need to set the username and password within the device.
   a. Select *Username* to open the Master User keyboard.
   b. Set your Username and select **Ok**.
   c. Select the *Password* to open the Master Password keyboard.
   d. Set your Master Password and select **Ok**.
   e. Press the **Back** button twice to return to the *Settings* page.

Configuring the Panel to a Network

The first step is to configure the panel's communication parameters. This only configures the panel to communicate with a network, and it is still necessary to tell the panel with which Master it should be communicating.

Network Communication With a DHCP Address

In the *Connection & Networks* page:

1. Select **Network Connection** to open the *Network Connection page.*
2. Toggle the *DHCP/Static* field until the choice cycles to *DHCP.* This action causes all fields on the page (other than *Host Name*) to be greyed-out.
3. Select *Host Name* to open the Host Name keyboard. Enter the new host name and click **OK**.

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